RESEARCH DEPARTMENT

ALDEBURGH U.H.F. RELAY STATION: SUMMARY OF INSTALLATION

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BRITISH BROADCASTING CORPORATION
ENGINEERING DIVISION
RESEARCH DEPARTMENT

TECHNOLOGICAL REPORT
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U.H.F. RELAY STATIONS : SUMMARY OF INSTALLATION

NAME: 114.2 ALDEBURGH

TYPE: 1

TRANSMISSIONS COMMENCED: (TRADE) 4.3.68 (SERVICE) 18.3.68

SITE DATA

LOCATION: ALDEBURGH

GRID REFERENCE: TM 442596

HEIGHT, a.o.d. : 15 m (50 ft)

FREQUENCIES

BAND: IV

CHANNELS: 23, 26 (BBC-2)
30, 33 (BBC-1)

TRANSMITTERS

TYPE: Klystron, 1 kW

OPERATING POWER: (1) 0.218 kW
(2) 0.87 kW

TRANSMITTING AERIAL

TYPE: BBC Standard Cardioid

RADIATING LENGTH: 16λ

H.R.P. : Fig.1

V.R.P. : Fig.2

MEAN HEIGHT: 66 m (216 ft 6 in)

SUPPORT MAST

TYPE: 61 m (200 ft) Tower

OVERALL HEIGHT: 72 m (235 ft) a.g.l.

RECEPTION

PARENT: Tacolneston

CHANNELS: 55 (BBC-2), 59
62 (BBC-1), 65

POLARIZATION: Horizontal

AERIALS: 2 x 4λ Trough

AERIAL HEIGHTS: 37 m (120 ft)
43 m (140 ft)

FEEDERS

TRANSMITTING: HF $1^5/8$ - 50

RECEIVING: HF $^7/8$ - 50

RADIATION CHARACTERISTICS

POLARIZATION: Vertical

MEAN E.R.P. : (1) 1.6 kW
(2) 6.3 kW

MAXIMUM E.R.P. : (1) 2.5 kW
(2) 10 kW

NOTES:
(1) Initial operation
(2) Power increase to be made when Crystal Palace BBC-1 comes into service

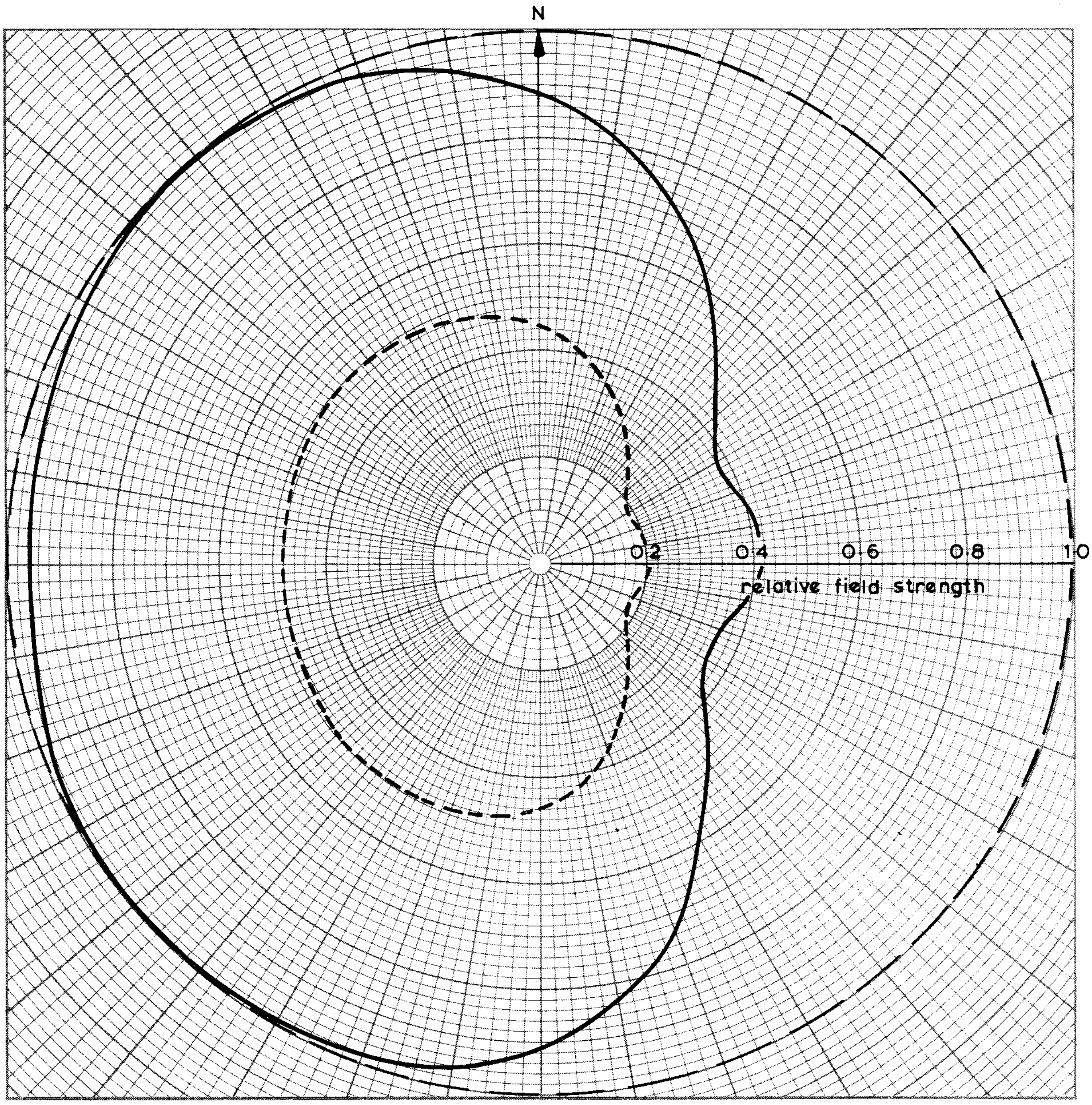

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Fig. 1 Horizontal radiation pattern

Vertical polarization

- - - - - - Transmitter power 0·218 kW Mean E.R.P. 1·6 kW

———— Transmitter power 0·87 kW Mean E.R.P. 6·3 kW

—— —— Stockholm E.R.P. limit

unit field corresponds to an E.R.P. of 10 kW

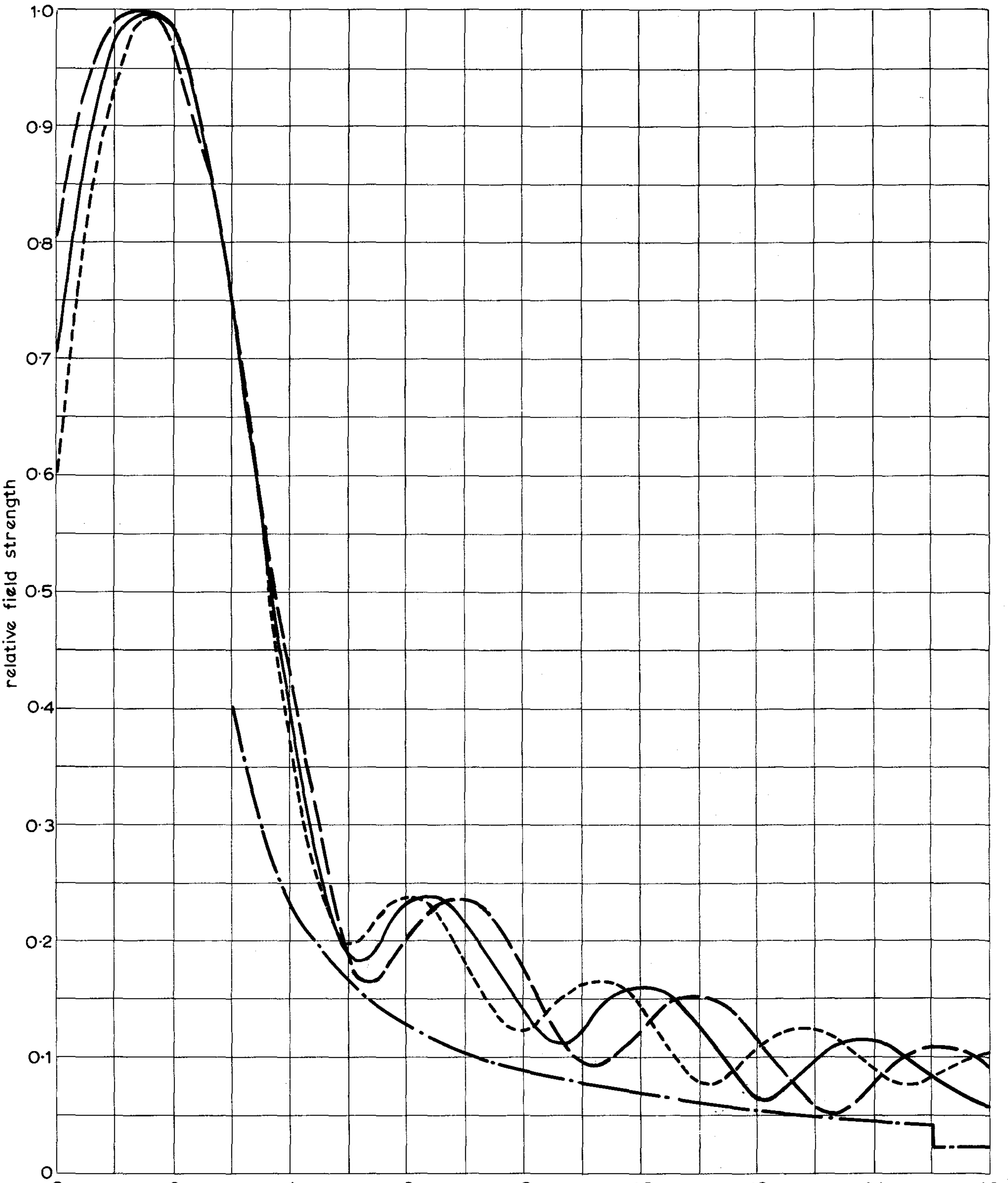

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Fig. 2. Vertical radiation pattern

— — — — 475 MHz
———— 528 MHz
– – – – – 580 MHz

—·—·— Specified minimum field